DV6248/19T–00217 DC Axial Fan



Diagonal fan with DC drive. This DC drive employs an electronically commutated external rotor motor with high efficiency at low operating noise. The drive electronics is completely integrated in to the fan hub.

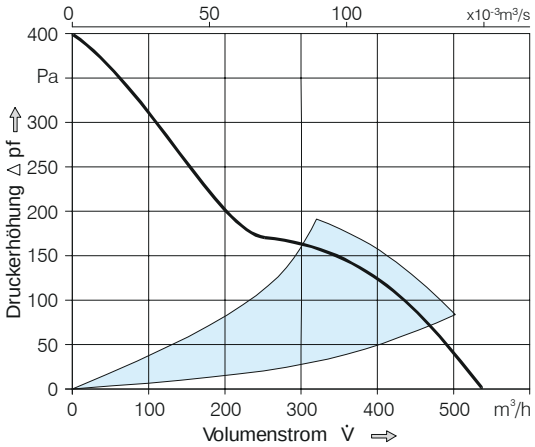
Features

- Low noise level through aerodynamically optimised housing and impeller.
- Electronic motor current limiting during start-up or blocking.
- Electronically safeguarded against incorrect polarity.
- Speed setting via external resistors:
  >=69,1kΩ → 2000rpm
  36,5kΩ → 2400rpm
  24,0kΩ → 2800rpm
  19,1kΩ → 3200rpm
  <=10,7kΩ → 4300rpm
- Alarm output signal, open collector style, for external monitoring.
- Extremely low EMI.
- Electrical connection via 4 leads AWG22 and connector.

Technical Data

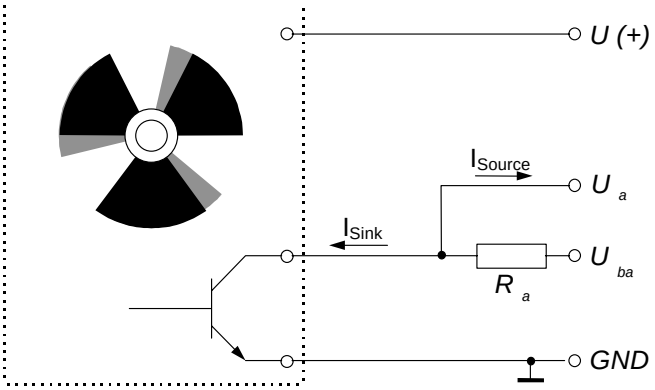
Nominal Voltage	V DC	48
Voltage Range	V DC	36 ... 72
Nominal Speed	min^{-1}	4300
Max. flow rate	m^3/h	540
Max. flow rate	CFM	317,8
Noise free air	dB(A)	63
Current consumption	mA	880
Power consumption	W	42
Perm. Ambient temperature at max. voltage.	°C	-20 ... +75
Service life (T_{Max})	h	40.000
Service life (40 °C)	h	90.000
Approvals		CSA, UL, VDE
Mass	g	820
Bearing system		Ball bearings

All data are average figures at nominal voltage. Subject to technical change.



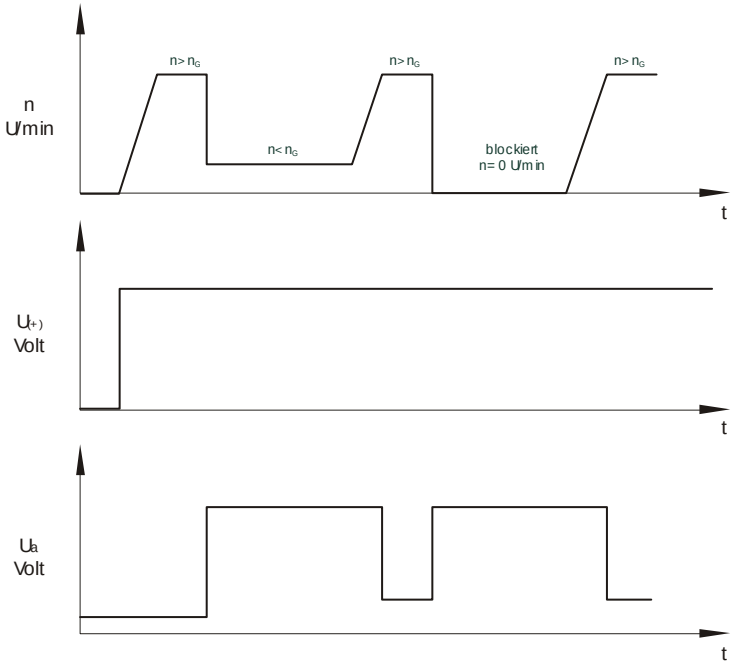
For dimensions and electrical connection please see separate drawing # 9695400217.

Alarm Output Signal:



U (+) = Supply Voltage (+)
U_a = Alarm Signal
U_{ba} = Alarm Supply Voltage
GND = Ground (-)
Ra = External Pull up-Resistor

$$R_a = \frac{U_{ba} - U_{aL}}{I_{sink}}$$



Alarm circuit

This fan is equipped with an integrated alarm circuit producing a continuous output signal U_a for monitoring fan speed. At proper operation in the nominal voltage range the alarm output is a „low“ level.
When speed decreases below limit speed n_G , e.g. by high friction torque, locked rotor condition, or low operating voltage, a „high“ level output will occur. When speed recovers, the alarm signal goes back to „low“, i.e. alarm is non-latched.

Technical Data

Designation	Test condition	Symbol	Value
Alarm output voltage		U_{ba} max	60 V DC
Max. sink current		I_{sink} max	100mA
Output voltage “Low” n>n_G	I_{sink} = 20 mA	U_a L	≤ 0,4 V
Output voltage “High” n<n_G		U_a H	60 V
Leakage current n<n_G	U_a = 60 V	I_{sink}	max. 15µA
Alarm delay time		t_2	10 s +/- 4s
Signal rise and fall time U_a		t_r, t_f	min.0,5V/µs (Stand TTL)
Alarm trip speed		n_G	1400 to 1600rpm

t_r → Low-High t_f → High-Low Alarm Signal suppressed at start-up